AMENDMENTS TO THE DRAWINGS

The attached Replacement Sheet 2/8 of the drawings include changes to Figure 2 and therefore replaces the original sheet 2/8 including Figure 2.

Attachment: Replacement Sheet 2/8

REMARKS

Claims 1-9 are now pending in the application, Claims 10-49 having been previously cancelled. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

DRAWINGS

The drawings stand objected to for certain informalities. Applicant has attached revised drawings for the Examiner's approval. In Replacement Sheet 2/8, reference number 72 has been moved to improve clarity and correctly point to the orifice at the center of the spacer 64.

The Examiner has also objected to the drawings for failing to show the "electrically conductive filler disposed in a via formed through said first gas impermeable element" as described in Claim 4. The Applicants respectfully traverse this objection.

Applicants note that the "electrically conductive filler" as described in Claim 4 is referred to as electrically conductive connectors 110, 210 throughout the specification. See paragraphs [0038], [0045] and [0048]. The electrically conductive connectors 110, 210 may be formed by either filling the vias 112 entirely or by coating the via walls with conductive material. The embodiment depicted in Figures 4A, 4B, 6A and 6B shows the conductive material as a wall coating. Therefore, Applicants submit that the drawings do accurately depict the "electrically conductive filler" as described in Claim 4.

REJECTION UNDER 35 U.S.C. § 112, FIRST PARAGRAPH

Claims 1-9 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. This rejection is respectfully traversed.

The Examiner states that in Claim 1, "a second gas-impermeable element in a subjacent relationship to said first planar manifold" is not supported by the disclosure as originally filed. See Office Action dated 9 OCT 2007 at p. 3. However, Applicants point to Figure 6A in which second gas-impermeable element 76 is in subjacent relationship with first gas-impermeable element 266. Applicants also submit that the specification at paragraph [0036] states that the term subjacent is a relative term and the order of adjacent components within the fuel cell 60 may be inverted.

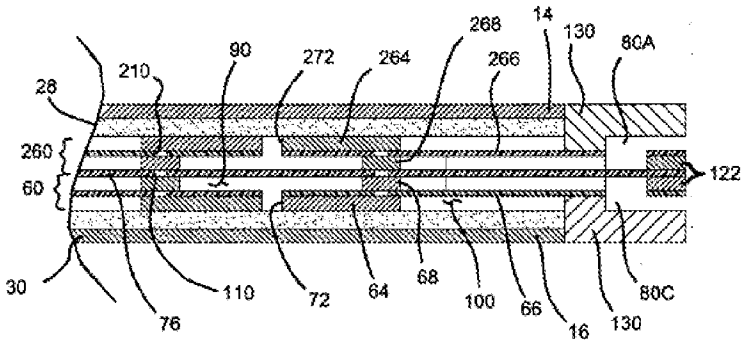


FIG 6A

REJECTION UNDER 35 U.S.C. § 112, SECOND PARAGRAPH

Claims 1-9 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which Applicant regards as the invention. This rejection is respectfully traversed.

The Examiner states that it is unclear how the first planar manifold is "between" the first gas-impermeable element 66 and the active element 30 because Figures 2 and 3 show it as part of the sheet 66. Further, the Examiner states that it is unclear how the second planar manifold is "between" the second gas-impermeable element 76 and the active element 30 because Figures 2 and 3 show it as part of the sheet 66.

At the outset, Applicants would like to note that the second planar manifold is defined between the first gas-impermeable element 66 and the second gas-impermeable element 76. In support of the Claim, the specification states that "an exhaust manifold 100 is defined between an outer face 104 of the first sheet 66 and an adjacent face 108 of the diffusion medium 30." See Paragraph [0037]. The specification also states that "an inboard major face 84 of the first sheet 66 and an inboard major face 88 of the second sheet 76 define an inlet manifold 90 therebetween." See Paragraph [0037]. The manifolds 90, 100 are illustrated and referenced in Figure 4A. Figures 3A and 3B also show the periphery of the manifolds 90, 100, but do not define them as located on sheet 66. Figures 3A and 3B are intended to show the structure of the separator plate 60 rather than just sheet 66.

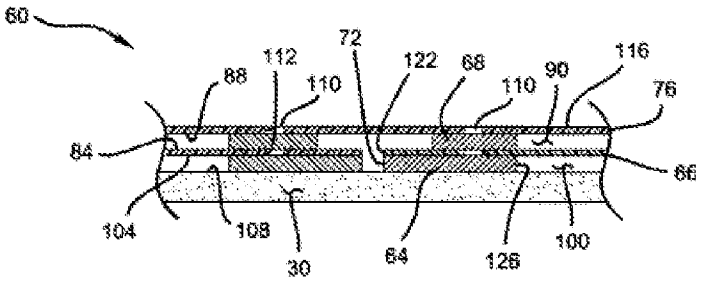


FIG 4A

The Examiner states that the recitation "each of said plurality of said spacer and said first gas-impermeable element" is unclear. Applicants submit that the orifice is found in both the spacer and the gas-impermeable element and the orifice formed therethrough is a single element allowing reactant gas to be directed through the disks 64 and the first sheet 66. See Paragraph [0040].

The Examiner states that the recitation "wherein a flow path is established from said second planar manifold through said orifice over said active element to said first

planar manifold" is unclear because "said active element" is not disposed between said second planar manifold and said first planar manifold. Applicants point to Figure 4B and Paragraphs [0040] – [0041] in support of this Claim. Reactant gas flows from the second planar manifold 90 through orifice 72 (see Leg "D" shown in Figure 4B) and over the active element 30 (see Leg "A" shown in Figure 4B) to the first planar manifold 100 (see Leg "E" shown in Figure 4B). In this arrangement, it is unnecessary for the active element to be disposed between the second planar manifold and the first planar manifold for the reactant gas to flow through it.

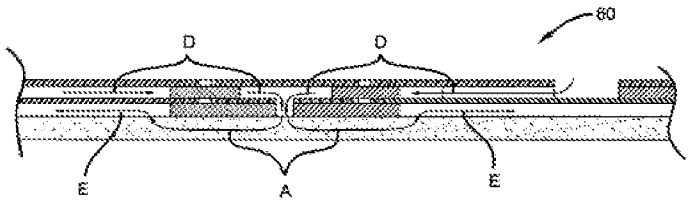


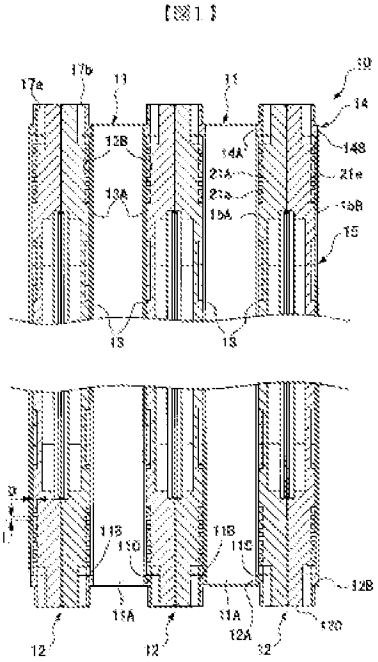
FIG 4B

The Examiner states that in Claim 9, the recitation "spacers are equidistantly spaced on said first gas-impermeable element within said first planar manifold" is unclear as the spacers or the first gas-impermeable element may be within the manifold. Applicants submit that the spacers 64 are "within" the first planar manifold 100 as described in Paragraph [0037].

REJECTION UNDER 35 U.S.C. § 102

Claims 1-9 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Wakana (JP 2002-008682). This rejection is respectfully traversed.

The Examiner explains that Wakana discloses a disc-like bipolar plate defined by two plates comprising a plurality of circumferential sections 15 having openings for the inlet and outlet reactant gas, where the sections 15 represent the Applicant's spacers. See Office Action dated 9 OCT 2007 at p. 5. As best illustrated in Figure 1 of the Wakana reference, the circumferential sections 15 are formed on the faces of the periphery sections 14. See Wakana [0010]. Therefore, the circumferential sections 15 cannot be "disposed within said first planar manifold", wherein the "first planar manifold [is] defined between a first gas-impermeable element and an active element" as described in Applicant's Claim 1.



Further, Applicant submits that the Wakana reference does not teach "each of said plurality of said spacers and said first gas-impermeable element having an orifice formed therethrough" as recited in Applicant's Claim 1. The openings for inlet and outlet gas 17a that the Examiner refers to are not found to penetrate the circumferential sections 15, but instead run parallel to the surface.

The Examiner states that the plates 13 are made of metal, thus forming an electrically conductive path extending through the fuel cell. See Office Action dated 9 OCT 2007 at p. 5. However, Applicant notes that the plates 13 of the Wakana reference do not extend through the fuel cell as described in Applicant's Claim 2.

Applicant's Claim 2 recites that the electrically conductive path extends through the "plurality of spacers and said first gas-impermeable element to said second gas-

impermeable element." However, the plates 13 of the Wakana reference are located on the outside of the fuel cell 10 rather than "through the spacers" as recited in Claim 2. The Wakana reference fails to teach that the metal plates 13 can be found within the circumferential sections 15 as described in the present application.

Applicants respectfully submit that the reference of record does not disclose the invention as defined in Claim 1. For at least the above reasons, Applicants respectfully submit that Claim 1 should be in condition for allowance. Claims 2-9 depend from Claim 1 and should be in condition for allowance for at least the same reasons.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

/David A. McClaughry/

Dated: January 9, 2008

David A. McClaughry
Reg. No. 37,885

HARNESS, DICKEY & PIERCE, P.L.C.
P.O. Box 828
Bloomfield Hills, Michigan 48303
(248) 641-1600

DAM/AKC/pal